

# GEOGRAPHIC NEWS BULLETINS

*Published Weekly by*

## THE NATIONAL GEOGRAPHIC SOCIETY

(The National Geographic Society is a scientific and educational Society, wholly altruistic, incorporated under the Federal law as a non-commercial institution for the increase of geographic knowledge and its popular diffusion.)

General Headquarters, Washington, D. C.

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Contents for Week of May 18, 1936. Vol. XV. No. <sup>13</sup>~~18~~.

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1. Portland, Oregon, Host to the N. E. A.
2. Where Does Our Weather Come from?
3. Trooping the Color for the King's Birthday
4. Dirge for a Windjammer
5. Rouen, France, Rues the Day

**NOTE TO TEACHERS:** The next issue of the GEOGRAPHIC NEWS BULLETINS will be published upon the reopening of schools in October. The BULLETINS are not issued during the summer vacation months. It will facilitate the handling and prompt mailing of the BULLETINS in the fall if teachers will apply now for the BULLETINS they need for next year. See application form following Bulletin No. 4.

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*Photograph by William H. Hoover*

### WEATHER-WATCHERS TAKE ADVANTAGE OF PICNIC WEATHER

Scientists in South-West Africa turn from picnic-weather prophecies for others to enjoy a real picnic themselves. With the cooperation of the National Geographic Society, the Mount Brukkaros expedition established a complete observatory that took measurements of the sun's radiation (see Bulletin No. 2).

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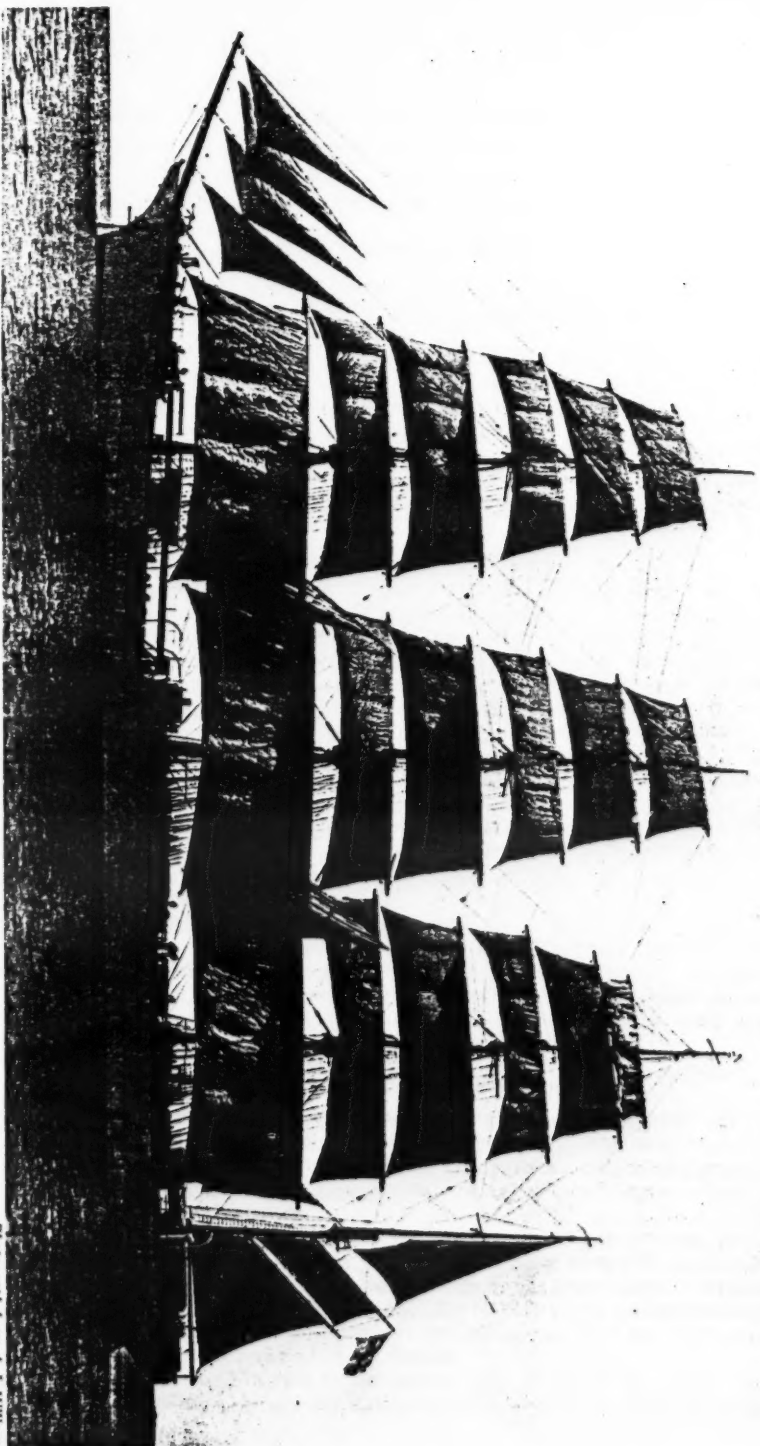
### HOW TEACHERS MAY OBTAIN THE BULLETINS

The Geographic News Bulletins are published weekly throughout the school year (thirty issues) and will be mailed to teachers for one year upon receipt of 25 cents (in stamps or money order). Entered as second-class matter, January 27, 1922, at the Post Office at Washington, D. C., under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized February 3, 1922.

THE FLYING FINN HAS GONE TO JOIN "THE FLYING DUTCHMAN"

The *Herzogin Cecille*, Finnish four-masted bark, is the latest of the windjammer fleet to be lost. A casualty or two each year thins the sailing sisterhood. The *Melbourne* sank swiftly, actually sailing under. The *Hougomont* was stripped of her sails for conversion to a coal barge, as ugly as a plucked swan. The *Herzogin Cecille* at least had a sudden but honorable burial at sea (see Bulletin No. 4).

Photograph from A. J. Villiers



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### Portland, Oregon, Host to the N. E. A.

**T**EACHING may not be a bed of roses, but it will lead to Oregon's City of Roses, Portland, for the annual convention of the National Education Association, June 27-July 2.

Surpassed in size by two dozen other cities of the United States, Portland nevertheless raises in the fertile Willamette Valley a rich crop of buildings—tall thin ones for offices and hotels, low spreading ones for factories and mills, and smaller ones well-spaced on rose-bordered lawns for homes.

To the east the skyline is scalloped by the Cascade Range's green foothills and remoter white peaks, culminating two miles up in the air with Mt. Hood's icy point. To the west flows the broad Columbia River, the country's largest stream emptying into the Pacific.

#### Streets Lined with Rose Hedges

The city maintains 2,251 acres for 21 parks and playgrounds, and there are almost as many golf courses. In fact, there is said to be more room per person for swinging a golf club than in any other place in the country. Macleay Park, gift of a pioneer, is preserved in its natural ruggedness. Peninsula Park, with its sunken gardens, is considered the largest rose park in the United States. Washington Park, even more famous, contains a statue to Sacajawea, Indian girl who guided Lewis and Clark. Here, too, are the International Rose Test Gardens.

To these public gardens, as well as to countless private estates and lawns, the middle of June brings spectacular blossoming. Rosebuds the size of cups, opening as wide as saucers, are not unheard of. Well over 300 varieties are grown, for the climate is singularly suited to outdoor roses, with winters no colder than Asheville, N. C., and summers like those of Maine. Along the city's residential streets grow 200 miles of pink and crimson rose hedges. The annual Rose Festival has been an added attraction since 1907.

With nine high schools, over seventy grade schools, and two colleges, Portland has a low record of illiteracy of less than 1 in 2,000. The public library, with 17 branches, has a circulation of around three million volumes annually, or about nine for each citizen—one of the highest per capita records in the United States. In addition to a symphony orchestra, the city has developed a junior symphony of musicians under 21. One of its novelists has just won a Pulitzer Prize.

#### Valley Headquarters for Mountain Playground

Scenic drives are a recreational feature, especially riverside boulevards and the famed Columbia River Highway, which Oregonians claim to be "the most beautiful road in the world." A favorite day's tour is to Oregon's mountain playground, Mt. Hood, 11,225 feet high, the only major peak in the United States which is completely looped in coils of highway.

Originating as a boat landing for fur traders, a mere clearing in a maple grove, Portland received its name in 1844, when the flip of a penny awarded christening rights to a man from Maine, instead of to his partner in the joint claim, a Massachusetts native who favored the name of Boston. By 1849 it was a settlement large enough to supply beef and cereal to gold-rushers in California. For the fifty years following 1870, the population doubled every decade.

This extensive hinterland pours its products into Portland by river, rail, highway, and air. Since 1928 the airport has occupied a picturesque site out in the

harbor, where Swan Island was built up to 250 acres, transformed into a rose-bordered lawn with hangars, and linked to the mainland by a causeway.

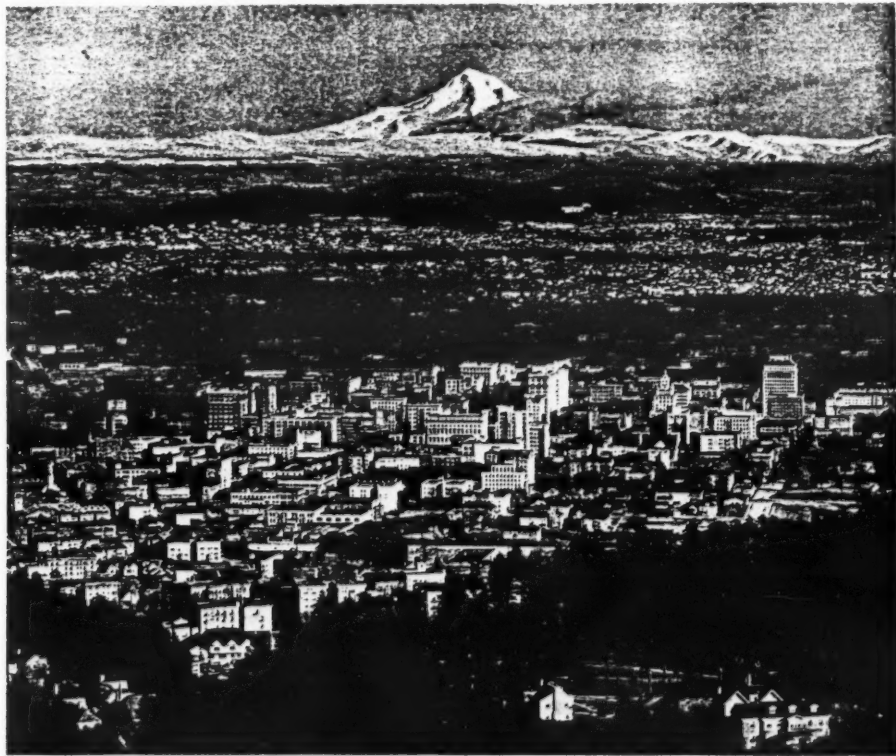
Located on the Willamette River, several miles before it reaches the Columbia and fully 115 miles from the coast, Portland is nevertheless a seaport. The Columbia, now cleared of its entrance bar, carries seagoing vessels to Portland's 29 miles of harbor frontage in the placid Willamette.

Three main branches of its industry deal with lumber, livestock, and fruits and vegetables. In furniture and veneer factories Portland is leading the West. Saws whirl, planes whine, and logs become ladders, broom handles, venetian blinds, and coffins. Anything from a ready-cut house to an ironing board is made there. The related paper pulp industry turns out fruit wrappers, newsprint, and paper toweling.

Portland is the leading livestock shipping center of the Pacific, the second greatest primary wool market in the country, and leading woolen milling city of the West. Fruits, canned and dried, are prepared from the Willamette Valley's supply of apples, peaches, prunes, and berries.

**Note:** For additional material and photographs about Oregon see "Native Son's Rambles in Oregon," *National Geographic Magazine*, February, 1934; "Pirate Rivers and Their Prizes," July, 1926; "The Non-Stop Flight across America," July, 1924; "Hunting Birds with a Camera," August, 1923; "The Fight at the Timber-Line," August, 1922; and "The Origin of American State Names," August, 1920.

**Bulletin No. 1, May 18, 1936.**



*Photograph by Ray Atkeson*

#### **BLOCKED IN THE CRADLE OF THE PEAKS**

In Portland, most city blocks really are blocks; they are uniformly 200 feet square and, for slum-avoidance, without alleys. Although Oregon's chief city was started in the sheltered Willamette Valley, its suburbs slope their residential checkerboards upward (foreground) to heights a thousand feet above sea level on both sides of the mountain-cradle. Beyond the Willamette River (center), crossed by seven drawbridges, Portland's hills rise into the Cascade Range, with Mt. Hood dominating the background.

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### Where Does Our Weather Come from?

**W**HEN Mark Twain lamented that everybody complained about the weather but nobody did anything about it, he assumed that nothing could be done. But he was not reckoning with modern sun-gazers.

Reliable long-range forecasting is the next best thing to changing the weather, and that is being undertaken on a new basis. Scientists are graduating from the which-way-the-wind-blows school of weather prophecy. By measuring the sun's radiant energy, they believe they may be able to anticipate weather conditions in some areas two weeks in advance. For the sun's rays affect air flow, and that's how weather is born.

Weather, with its showers, clouds, and winds, may seem a local thing, but actually the weather of the United States is born in faraway places—Arctic ice fields, the steaming-hot Tropics, the blue waters of the Gulf of Mexico, and the foggy northern Pacific.

#### Air Flows between Poles and Equator

The Poles and the Equator are the fundamental weather breeders. Air, cooled at the Poles, falls toward the earth's surface and flows toward the Equator. There it is heated, rises again, and flows back toward the Poles once more.

But because the earth is whirling on its axis, and its surface is broken up by mountain chains, river valleys, oceans, and continents, this flow of air between Equator and Poles is far from smooth. It moves in fits and starts and often meanders off its course.

The thick air blanket covering the earth is therefore kept in eternal turmoil. Huge mountainous masses of cold air from the Poles and warm air from the Tropics battle each other ceaselessly, and from their struggles comes the weather that we know.

When warm and cold air masses collide, vast areas of high and low atmospheric pressure are formed, known to the weather man as "highs" and "lows" for short. Atmospheric pressure is the weight of air above any point.

In a "high," cold air moves downward in the center of the area, piling up a greater weight or pressure of air than normal. Warm winds flow around and outward from the center, in an anti-clockwise direction. Fair weather comes with "highs," for the downward-moving cold air forms no clouds.

#### "Lows" Bring Bad Weather

In a "low," warm air rises in the center, forced up by cold air flowing inward around the edges in a clockwise direction. The rising air reduces the pressure at the surface below normal. As the warm air rises it is cooled, its moisture condenses and falls as rain. Hence "lows" bring storms, rain, and snow.

Across the United States, from west to east, moves a steady parade of alternate "highs" and "lows," and with them they bring the nation's weather. They move as much as 500 miles per day, as far as one may drive in an automobile, and cover areas ranging up to half the continent. Only when a "high" or a "low" becomes "stalled" over a single region does one kind of weather, such as a drought or a cold wave, persist for an unusual length of time.

Out over the north Pacific Ocean, south of the Aleutian Island chain, hangs a more or less permanent "low." In its center rises warm air heated by the warm Japanese current, while cold air from the Arctic pushes in at its sides. From it comes a large proportion of the "lows" that bring storms and wet weather to the



United States, breaking off from the parent "low" like small bubbles from a big one, and moving steadily east. Other "lows" form over the United States itself, when cold currents from the Arctic and warm, moist breezes from the Gulf of Mexico collide.

The National Geographic Society cooperated in establishing a temporary solar radiation observatory on Mount Brukkaros in South-West Africa (see illustration, page 1).

Note: See also "Scientific Results of the Stratosphere Flight," *National Geographic Magazine*, May, 1936; "Man's Farthest Aloft," January, 1936; "Exploring the Ice Age in Antarctica," October, 1935; "Exploring the Stratosphere," October, 1934; "The Conquest of Antarctica by Air," August, 1930; "Keeping House for the 'Shepherds of the Sun,'" April, 1930; "The Secret of the Southwest Solved," December, 1929; "Hunting an Observatory," October, 1926; "Measuring the Sun's Heat and Forecasting the Weather," January, 1926; "Toilers of the Sky," August, 1925; and "Interviewing the Stars," January, 1925.

Bulletin No. 2, May 18, 1936.

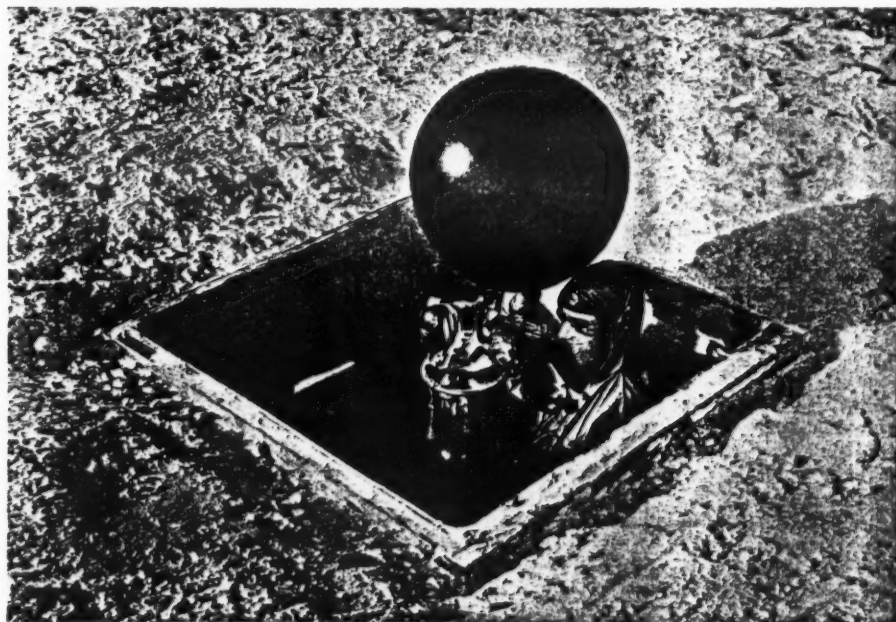
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### Souvenir of Stratosphere Flight

In the belief that many teachers would wish to have a personal memento of the historic flight of the National Geographic Society-U. S. Army Air Corps Stratosphere balloon *Explorer II*, which reached a world's record altitude of 72,395 feet November 11, 1935, The Society has had a portion of the balloon made into the form of bookmarks measuring  $2\frac{1}{4}$  by 7 inches. Information in regard to the flight is printed on each bit of balloon fabric.

Any teacher may obtain one of these unique souvenirs of the flight, *as long as the supply lasts*, by addressing a request to the School Service, National Geographic Society, 16th and M Streets, N. W., Washington, D. C. The request should be made on school stationery, or a school return address should be given. *No more than one bookmark* can be sent to each teacher applying.

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© Byrd Antarctic Expedition

### COMING UP FOR AIR DATA

While exploring the Ice Age in Antarctica, the Byrd Expeditions collected information about the air currents which periodically create miniature ice ages elsewhere over the world. Hydrogen-filled balloons were released, and the observer measured their speed and direction with his instrument, the theodolite, to determine the activity of polar air masses.

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### Trooping the Color for the King's Birthday

AMONG the many evidences of his people's devotion which King Edward will receive on his birthday, June 23, will be one peculiarly associated with London—"Trooping the Color." The devotion will be concentrated about a comparatively small inverted "J" extending away from Buckingham Palace.

The stem of the "J" is the Mall and the curlicue is Whitehall, ending with a great flourish at the Horse Guards Parade. It will be lined with closely packed crowds, each person intent upon cheering a little and seeing as much as his location allows of the Trooping of the Color.

In this colorful birthday tribute, which is an 18th century elaboration of the Guard-Mounting Ceremony, the King rides through the Mall to Whitehall, takes part in the Trooping on the Horse Guards Parade, and leads the King's Guard back to Buckingham Palace for Guard Changing and a band concert.

#### King Edward Has Participated Before

King Edward will have the advantage of experience, for in 1933 he substituted for his father when illness prevented the latter from attending.

Trooping the Color, originating in uneasy times when a display of armed strength had its uses, takes place in a neighborhood where several monarchs have profited or lost because of the armed strength and loyalty they could command—Whitehall, now practically the administrative center of the Empire. Its location was once covered by Whitehall Palace, which Henry VIII snatched from Cardinal Wolsey. Here Cromwell came with his secretary John Milton, when monarchy was in disfavor with the people. Here Charles II triumphantly restored royal rule, but from the same structure James II fled into exile. A tablet beneath the central window of the Banqueting Hall, only building surviving the fire in 1698, shows where Charles I, lacking his people's love, stepped upon a scaffold to be beheaded.

Related to the vanished Whitehall Palace is the building of the Horse Guards, on the site of the older guardhouse. The wide graveled square of the Horse Guards Parade in front is the old tilt yard created by Henry VIII. More recent history has adorned it with equestrian statues of Field Marshals Wolseley and Roberts, a Turkish cannon, and the dignified shaft of the Guards' Memorial, 1914-1919, with a figure to represent each of the five regiments. Beyond stretches the green expanse of St. James's Park.

#### Brilliant Variety in Uniforms

For Trooping the Color, the Whitehall side of the Parade, from the aerial-crowned Admiralty (see illustration, next page) to the quiet gardens of Downing Street, is draped with flags and lined with a marginal throng kept in place by blue-coated "bobbies." Ladies of the royal family watch from windows of the Horse Guards. The King sits his mount at the Saluting Point in front.

The Color is "trooped" by two troops of the Household Cavalry and about 1,500 men of the King's Guard. Originating in cavalier friends loyal to Charles II through his exile, these famous guardsmen can boast of traditions and uniforms that are quite distinctive. The Royal Horse Guards are known as "Blues" because of their blue tunics, with touches of scarlet in collars, cuffs, and horsehair plumes rippling over shining helmets. The Life Guards ride in scarlet tunics, with adornments of blue. Both wear white buckskin trousers, black boots to their knees, and steel cuirasses polished until they blaze in the sunlight.

The Flank Companies of the Foot Guards represent their respective regiments. Their names are familiar and famous in history, poetry, and song—

Bulletin No. 3, May 18, 1936 (over).

Grenadier, Coldstream, Scots, Irish, and Welsh Guards. Topped by the well-known black bearskin busbies, their uniform of scarlet tunic and blue trousers has set military fashions for years, even in musical comedy and regiments of toys. The regiments are differentiated by variations in the tiny plume of their busbies as well as the spacing of their buttons.

Their massed bands (see illustration below) initiate Trooping the Color with "God Save the King." They continue to play while the flag selected for the honor is "trooped," or carried slowly along the line of the tense regiments.

When "The Troop" is over, the King reviews his guardsmen. They march past him, each man executing "eyes right" as he comes abreast while the King takes and gives the salute. Inspiring jauntiness and pride, the massed bands play the regimental march of each regiment as it passes the King. This "March Past" is a twin ceremony, taking place first in slow, then in quick time—intricate marching maneuvers decorating the Parade with constantly evolving geometrical figures, colors flashing, steel dazzling, horses and men fitting perfectly into the complicated pattern.

Then the Parade is suddenly still. The King and his escort swing into the lead. The massed bands strike up the "Blue Devils." Companies wheel, lines spread out. The procession moves between shouting crowds along the Mall to Buckingham Palace, where the Guard is changed and the throngs are treated to a half-hour concert by the Regimental bands.

Note: London and its colorful ceremonies and customs are described in the following: "Great Britain on Parade" and "Shadowy London by Night," *National Geographic Magazine*, August, 1935; "Vagabonding in England," March, 1934; "Some Forgotten Corners of London," February, 1932; "Highlights of London Town," May, 1929; "London from a Bus Top," May, 1926; "Cathedrals of the Old and New World," July, 1922; and "Through the Heart of England in a Canoe," May, 1922.

Bulletin No. 3, May 18, 1936.



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#### THE MUSICIAN HATH CHARMS TOO

Among the brilliant uniforms on display while Trooping the Color on the Horse Guards Parade, none can surpass those of the Regimental bands. Trumpeters and drummers of the Horse Guards wear black velvet jockey caps, richly laced coats with knee-length skirts, and long gaiters. Pipers of the Scots Guard wear their bright plaid and kilt. The Admiralty Building displays from its windows, special flag decorations. The Nelson Column (left) also overlooks the Horse Guards Parade from Trafalgar Square.



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### Dirge for a Windjammer

GORED by rocks, pounded by mountainous waves, the four-masted bark *Herzogin Cecilie*, queen of the vanishing windjammer fleet, has perished against the jagged cliffs of England's Devon coast. Eight times she had won the traditional Australian grain race through half the "seven seas."

Her end was as dramatic as her triumphs. On the way from Falmouth to Ipswich, with all 34 sails puffed into giant pincushions before a stiff wind, she was enveloped by a dense Channel fog just as she approached the black crags of Bolt's Head. There was a rending crash. Distress signals flared faintly in the white mist. A lifeboat from the coast rescued her crew. Her captain and his wife left reluctantly. Broken masts were submerged in white foam of breakers. The *Herzogin Cecilie* became a legend.

### Less Than a Score of Windjammers in Sailing Order

This part of Devon's coast, with rugged cliffs 400 feet high and ragged rocks smothered by the surf, has long been haunted by sea tales. Here the Danes grounded their prows. Off Hope Cove the Spanish Armada lost *St. Peter the Great*. Nearby foundered the famous tea clipper *Halloween*.

The *Herzogin Cecilie's* sisters of the sail, numbering between twenty and thirty, are a marine foreign legion now registered almost exclusively under the Finnish flag. Their home port is Mariehamn in the Aland Islands. Originally built for every nation of northern Europe and the United States, no square rigger has been launched since the *Archibald Russell* in 1905. Rarely are more than fifteen of them at sea at once.

Some of this present generation of windjammers differ sharply from the historic clippers of the preceding century. Seagoing barns with steel hulls, the modern windjammer makes its bid for trade through carrying capacity rather than speed. Their unwieldy bulk condemns them to drifting instead of sailing much of their mileage. Tramps by trade, in spite of their regal appearance, they sail about in search of a contract, carrying lumber, paper pulp, guano, coal, and tons of ballast stones while the Australian wheat crop ripens.

### Began as a Sailing School

Capacity and cheapness were not the only reasons for the *Herzogin Cecilie's* fame. Her sails in a veering wind gave her a fascination for sailors—a feminine fascination coupled with the lure of the unpredictable ocean. She might lose men over the side in a storm more often than would a steamship, but she would lose not even a small percentage as many by desertion.

Built in 1902 at Geestemunde, the *Herzogin Cecilie* was christened in honor of the Duchess Cecilie, and immediately launched upon her career as trainer and charmer of cadets for the North German Lloyd of Bremen. She was tall and slender. Her four pilot wheels were over six feet high. Youths stood on raised gratings to grasp them. Indeed, she was considered a big ship, 314 feet long and 46 feet broad, with quarters for 90 cadets, schoolmasters, and a doctor, in addition to officers and cooks. To all her lads she gave an intimate knowledge of sail, weather, sea, fish, and emergencies.

But those were the adolescent pre-war days of the *Herzogin Cecilie*. As part of Germany's indemnity she was turned over to France, where she lay for months unnoticed in harbor. Would her next move be toward the junk heap, or toward

movie stardom when next a film needed a ship blown up? In 1921 she was bought for the Finnish fleet and made one of its five training vessels.

Eight times she won the grain race. She and her cadets have rescued each other several times—once off Scotland when her ballast shifted, and twice when she ran aground. Once only 19 lads took her around Cape Horn—a ship built for 120 men! It took four and a half months. But she held the second best record from Australia to England, and on short trips could frequently pass steamers. Now her like, alas, is becoming as rare a bird as the dodo.

Note: The *Herzogin Cecilie* and other windjammers are described and pictured in the following: "Where the Sailing Ship Survives," *National Geographic Magazine*, January, 1935; "Washington, The Evergreen State," February, 1933; "Cape Horn Grain-Ship Race," January, 1933; "Out in San Francisco," April, 1932; and "Rounding the Horn in a Windjammer," February, 1931.

See also in the GEOGRAPHIC NEWS BULLETINS: "The Vanishing Fleet of Windjammers," week of January 28, 1935.

Bulletin No. 4, May 18, 1936.

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### NOTE TO TEACHERS

The attached blank may be used in ordering Bulletins for the coming year:

School Service Department,  
National Geographic Society,  
Washington, D. C.

Kindly send \_\_\_\_\_ copies weekly of the GEOGRAPHIC NEWS BULLETINS for the school year of 1936-37 for classroom use, to

Name \_\_\_\_\_

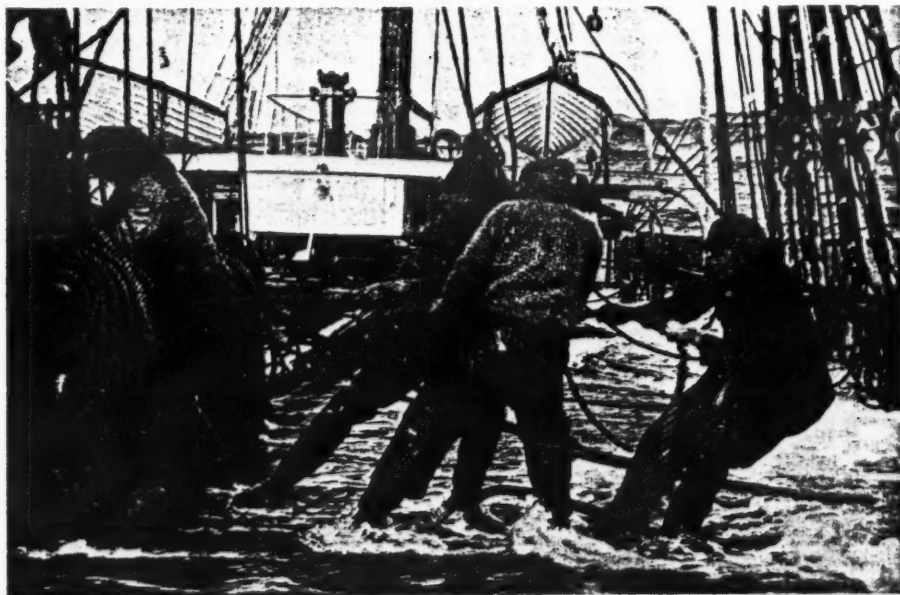
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City \_\_\_\_\_ State \_\_\_\_\_

I am a teacher in \_\_\_\_\_ School \_\_\_\_\_ grade \_\_\_\_\_

Enclose 25 cents for each annual subscription.

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### NO WINDJAMMER HAS EVER ROUNDED "THE HORN" WITH DRY DECKS

This might be a "wreck picture," but it is merely an incident of the Australian grain race aboard a windjammer in some of the stormiest seas in the world. Here the crew, in top boots and oilskins, is working the cross-jack brace with decks awash. Sometimes the men must cling to such lines for their lives when a huge wave breaks over the rails.

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### Rouen, France, Rues the Day

**I**N ROUEN, heart of Normandy, will beat also the heart of France, May 24. On that date the whole nation will honor Joan of Arc. Although Domremy was the birthplace of the Maid of France, it was at Rouen that the country girl, still in her teens, was transformed, with ordeal by fire, into Saint Joan.

Ancient capital of Normandy and leading city of the lower Seine, Rouen's attractions are triple: a core of gray Gothic town for charm, an inland seaport water front for prestige, and the cotton weaving industry for prosperity.

Springing from an obscure Celtic settlement in a marshy valley, called Rotomagus by the Romans, Rouen has now 122,000 inhabitants and is the twelfth provincial city of France. Show places include a magnificent Cathedral and the even more impressive Church of St. Ouen, called the height of Gothic perfection. Houses centuries old, with bishops and beasts carved on their weathered timbers, have survived in dim twisting streets.

#### Called "The Museum City"

Five centuries have not obliterated the Hôtel de Bourgtheroulde's carvings of medieval pageantry on the Field of the Cloth of Gold. Museums—enough to justify the title, "Museum City"—have been made from old convents and churches to house antiques, ironwork, ceramics, and paintings, among the finest collections outside of Paris.

Rouen is a little self-conscious about Joan of Arc. Perhaps it is haunted by her farewell sob, "Ah, Rouen, Rouen, is it here that I must perish? I fear that you may suffer for my death." This was 505 years ago, but, although she lost her life, she founded a nationality. Twenty-five years afterwards a French jury cleared her memory, pronouncing her no witch at all but a First Patriot of France.

Since then Rouen has cherished many spots which saw the last and saddest days of the martyr whom no one tried to save. The grim round Tower of Jeanne d'Arc, sky-rocket-shaped with its conical roof, shelters the stone walls and vaulting which echoed her firm defiance on May 9, 1431. A tablet at 102, Rue Jeanne d'Arc, marks the site of her prison cell. In the greatly enlarged Old Market Square, a simple slab marks the spot where stood the stake. Her ashes were thrown into the Seine.

#### Memorial Honors British World War Dead

The memorial chapel of St. Joan in the Cathedral contains a tablet commemorating English soldiers who died in the World War. Thus Rouen shows that it has learned the lesson of history, and is tolerant. Now it shelters in equal peace and honor the heart of Richard the Lion-Hearted, English King and Duke of Normandy, and 15,500 British war dead in the largest cemetery in France.

Rouen, the philosophic, celebrating devoutly one day, must return to work the next. Pillaging armies have sacked the city a half-dozen times since Viking invaders spread their red Norse banners over it. Violence and brutality matched the burning of Joan of Arc with unnumbered victims. Insurgents fought English armies of occupation, Huguenots and Catholics massacred each other, and French Revolutionaries followed their example. German forces terrorized the city in 1871.

The old city, sheltered in a horseshoe of hills on the Seine's north bank, has today replaced its massive city walls, drawbridges, and gates with broad boulevards. It has drained the marshes at the river's rim and built shops, banks, docks,

and street car lines. Markets, a mint, a stock exchange, and hotels provide activity in streets through which Joan was trundled in a criminal's cart.

Changes are especially marked along the water front, where reclaimed land makes the river narrower and deeper than when Rollo and his Norse pirates sailed up to give Rouen a panic and Normandy a name. About 80 miles from the sea, as the Seine carves its initial in curves, the port receives ships of seagoing size. Fringing the river banks are quays and repair docks, oil tanks, creaking cranes, grain elevators, and coal piles. Vessels nose in with cargoes of pungent dried fish, timber, and bales of cotton. Later, laden with plaster, sand, and cloth, they leave again, in numbers approaching several thousand a year. Water vestibule for Paris, 87 miles southeast, it is the third port of France.

Miles of industrial suburbs explain why Rouen has almost become the French word for cotton weaving. Local manufacture produces also machinery, soap, brushes, chemicals, and distilled beverages.

Distinguished natives of Rouen include the dramatist Corneille; the novelist Flaubert, and the discoverer Robert de la Salle, who sailed from that city to explore the Gulf of Mexico and the Mississippi.

Note: Normandy, the old French province of which Rouen is the ancient capital, is described and illustrated in the following: "Normandy—Choice of the Vikings," *National Geographic Magazine*, May, 1936; "Land of William the Conqueror," January, 1932; "Cathedrals of the Old and New World," July, 1922; and "The Beauties of France," November, 1915

Bulletin No. 5, May 18, 1936.



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#### JOAN OF ARC RIDES TRIUMPHANTLY OVER A WASHINGTON HILLTOP

Rouen is only one of many spots where memorials have been erected to the Maid of France. She is commemorated in Washington, D. C., also, in Meridian Hill Park, by a statue presented to the women of America by the French women of New York City.